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ABSTRACTS OF STUDIES IN AGRICULTURAL EDUCATION, SOUTHERN REGION, FOR THE YEAR 1964-65.

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DESCRIPTORS- *AGRICULTURAL EDUCATION, *EDUCATIONAL RESEARCH, *MASTERS THESES, *DOCTORAL THESES, *ANNOTATED BIBLIOGRAPHIES, FOLLOWUP STUDIES, SOUTHERN STATES,

FORTY-FIVE DOCTORAL DISSERTATIONS, STAFF STUDIES, AND MASTERS' THESES IN AGRICULTURAL EDUCATION ARE REPORTED IN THE FOLLOWING AREAS -- ACADEMIC ACHIEVEMENT, ADMINISTRATOR ATTITUDES, ADULT FARMER EDUCATION, AGRICULTURAL EXTENSION AGENTS, AGRICULTURAL MACHINERY, AGRICULTURAL PRODUCTION, CONTESTS, CURRICULUM, EDUCATIONAL NEEDS, EMPLOYMENT OPPORTUNITIES, EXTENSION, FARM MANAGEMENT, FOLLOWUP STUDIES, HISTORY, INTERNATIONAL EDUCATION, LEADERSHIP TRAINING, LEARNING LABORATORIES, PROGRAM EVALUATION, STUDENTS, TEACHER ATTITUDES, TEACHER EDUCATION, TEACHER LOAD, VOCATIONAL AGRICULTURE TEACHERS, YOUNG FARMER EDUCATION, AND YOUTH CLUBS. THE PURPOSE, METHOD, AND FINDINGS OF EACH STUDY ARE SUMMARIZED. THE STUDIES ARE ARRANGED ALPHABETICALLY BY AUTHOR. (JM)

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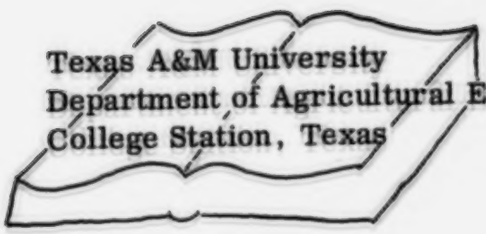
in

AGRICULTURAL EDUCATION

Southern Region

FOR THE YEAR

1964 - 65



Texas A&M University
Department of Agricultural Education
College Station, Texas

MARCH, 1966

VT004447

ABSTRACTS OF STUDIES

Agricultural Education

Southern Region

1964-65

AGERTON, WILLIAM REID. Employment Complexes and Occupational Categories of Former Students From Small Rural and Urban-Rural High Schools in the Tennessee Valley Area of Alabama Offering Vocational Agriculture. Non-thesis Study, Master of Education, 1965, Auburn University, Auburn, Alabama. 39 p. Department of Vocational, Technical and Practical Arts Education.

Purpose. -- To determine the nature and extent of the employment of former high school students from small rural and urban-rural high schools in the Tennessee Valley economic area of Alabama that offer Vocational Agriculture.

Method. -- A survey instrument for collecting data was formulated and mailed to 14 randomly selected schools.

Findings. -- (1) Twenty-eight percent of the former students were employed in the agricultural employment complex, 20 percent in occupations of the business employment complex, and 30 percent in the industrial employment complex. (2) Employment by occupational categories within the agricultural complex of former students was 9 percent in production agriculture, 2 percent in farm service, 2 percent in dairy products manufacturers and wholesalers, 4 percent in farm machinery and equipment manufacturers and wholesales, 7 percent in lumber and wood products, and 4 percent in meat processing and wholesales. (3) Twenty percent of the former students were employed in the distribution of supplies and services in the business complex. (4) The greatest percentage of the former students were employed in the industrial complex. (5) Eighty-five percent of the former students were enrolled in Vocational Agriculture. Of this total 70 percent completed two or more years of Vocational Agriculture in high school. (6) A total of 21 percent of the former students were attending or had attended a post-high school educational institution.

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APPLETON, R. STANLEY. A Study of Problems Encountered by Teachers of Vocational Agriculture in Leadership Programs of the FFA in Northeast Texas. Thesis, M. S., 1965, East Texas State University. 66 p. Library, East Texas State University, Commerce.

Purpose. -- The primary purpose of this study was to determine the nature of problems encountered by teachers of vocational agriculture in conducting an educational program in FFA leadership training and FFA activities and to determine to what extent these problems existed.

Method. -- Questionnaires were mailed to eighty-nine departments of vocational agriculture in 20 counties of Northeast Texas. The survey included a list of teaching activities for five major areas in the development of leadership abilities. Teachers were asked to check the degree of difficulty they encountered in teaching or dealing with each activity. An analysis was made as to the degrees of difficulty encountered to the number of years teaching experience in vocational agriculture.

Findings. -- Certain activities within the areas of public speaking and teaching the organization of the FFA appeared to present the most problems among teachers. In the latter area of leadership training, the activity of motivating students to attain higher degrees of membership was rated as being of either "some" or "extreme" difficulty by a majority of teachers, the highest percentage being those with one to ten years experience. However, a significant percentage of those having taught 20 or more years also had difficulty in motivating students to higher degrees of membership.

From this study it was concluded that further surveying was necessary to determine the reasons for the difficulties encountered. This further study would aid teachers in reducing or overcoming the difficulties involved.

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ATTAWAY, JOE P. A Study of Certain Factors Influencing the Teaching of Farm Mechanics in Area V of North Central Texas. Thesis, M. S., 1965, East Texas State University. 52 p. Library, East Texas State University, Commerce.

Purpose. -- The purpose of this study was to determine what major power tools are now in use in North Central Texas vocational agriculture shops, additional power equipment needed, and to what degree these machines affect the teaching of farm mechanics in vocational agriculture.

Method. -- Questionnaires were sent to forty-five vocational agricultural teachers, who were selected at random, from the ninety-five vocational agricultural departments in Area V. The teachers were asked to rate each piece of power equipment listed according to its degree of importance in the teaching of farm mechanics. This list included equipment that would ordinarily be considered farm mechanics equipment.

Findings. -- It was revealed by this study that 75 percent of the teachers placed some importance on all nineteen of the power tools listed. The highest

degree of importance was rated in this order: the A.C. welder, electric drill, oxyacetylene welder and circular saw. Others of major importance, but not listed in order, were the post drill, heavy duty grinder, tool grinder, hand sander, band saw and radial arm saw.

It was found that very few, if any, additional pieces of power equipment was needed, but many individual departments were deficient in needed power tools. All agreed that farm mechanics is a vital part of vocational agriculture, and the way a shop is equipped can have a great effect upon a teacher's success in teaching farm mechanics.

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BAKER, RICHARD A. A Study of Employment Opportunities in Off-Farm Agricultural Occupations in Alabama, a staff study, 1965, Auburn University, Auburn, Alabama. 95 p. Department of Vocational, Technical and Practical Arts Education.

Purpose. -- To ascertain the nature and extent of off-farm agricultural employment opportunities.

Method. -- Interviews were made with representatives of agricultural businesses and agencies. The study used a modified random sample from 20 counties in the state.

Findings. -- (1) There were 17 different types of off-farm agricultural businesses, industries and services operating in the 20 counties. (2) The businesses, industries and services employing the largest total number of persons were, in descending order, agricultural chemical manufacturers and wholesales, lumber and wood products, dairy products manufacturers and distributors, meat processing and wholesales, feed manufacturers and wholesales, poultry and poultry products processing and sales and farm supply retail stores. (3) Of the total number of persons employed by firms in all main products or service categories, 20 percent were engaged in off-farm agricultural occupations. (4) There were 184 different off-farm agricultural occupations found in the 20 counties. (5) Starting and top salaries seem to compare favorably with other occupations requiring comparable training and experience. (6) Employers prefer employees with farm or rural background. (7) Data collected from employers project an eight percent increase in number of opportunities available in off-farm agricultural occupations five years hence in the 20 counties.

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BASS, B. C. Teacher Loads and Teacher Duty Assignments in Multiple-Teacher Departments of Vocational Agriculture in Virginia. Staff Study, 1965, 4 p. Department of Agricultural Education, Virginia Polytechnic Institute, Blacksburg.

Purpose. -- To analyze the 1964-1965 teaching loads of teachers in multiple-teacher departments of vocational agriculture in Virginia and determine the extent duty assignments in such departments had been satisfactory.

Method. -- Data were supplied on a schedule by the teachers in 55 (77 percent) of the multiple-teacher departments of vocational agriculture in Virginia. There were 123 teachers employed in these 55 departments.

Findings. -- Each school day 6.6 percent of the teachers were teaching six periods, 28.9 percent were teaching five periods, 57.9 percent were teaching four periods, and 6.6 percent were teaching three periods.

An average of 1.7 school periods per teacher were scheduled for supervising farm programs and planning.

Most of the 43 kinds of duties investigated were shared by all of the teachers and the teachers considered this arrangement for most of the kinds of duties to be "highly satisfactory." However, in some departments the arrangements for accomplishing some of the kinds of duties were reported to be only "fairly satisfactory" and in a few cases were "unsatisfactory."

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BRAKER, CLIFTON RAY. An Agricultural Mechanic Course of Study for High School Students in the Wheat-Beef Producing Area of Northwestern Oklahoma. Report, M. S., 1965, Oklahoma State University. 48 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose. -- To determine the extent and nature of the agricultural mechanics programs in the vocational agriculture departments in the wheat-beef producing area of Northwestern Oklahoma.

Method. -- A questionnaire was sent to the thirty teachers of vocational agriculture in seven Northwestern Oklahoma counties.

Findings. -- With an agricultural mechanics course in high school, a larger group of students could be reached by the vocational agriculture teacher. Additional equipment and training in skills and competencies will be needed by all these teachers of vocational agriculture. These teachers are now spending more time teaching problems in which they feel more qualified and/or have facilities available for teaching. The University programs of teacher preparation in the future are going to have added responsibilities of preparing future teachers in agricultural mechanics. Past graduates of vocational agriculture report that the training they receive in agriculture mechanics has been very beneficial in their work.

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BROWN, HERMAN DALE. An Investigation of Attitudes and Opinions Held by Teachers of Vocational Agriculture and Their Administrators Regarding Selected Areas of the Vocational Agriculture Program. Thesis, Ed. D., 1965, Oklahoma State University. 106 p. Library, Oklahoma State University, Stillwater.

Purpose. -- To determine whether or not a significant difference existed between the attitudes and opinions of teachers of vocational agriculture and their administrators concerning selected areas of the vocational agriculture program.

Method. -- The method of collecting data was through a questionnaire mailed to each of the members selected for the study.

Findings. -- The findings were as follows: (1) teachers are more positive in their belief as to the continued need for adult and young farmer education than was indicated from the responses of the administrators, (2) responses from both teachers and administrators indicate the need for an evaluation of the FFA program to provide bases for such revisions as will enable the FFA to function in a manner more compatible with current trends in vocational education, (3) teachers expressed a greater concern in those areas which effect them individually, whereas administrators express greater diversity in their responses, (4) teachers and administrators were in harmonious agreement as to the desirability of curriculum expansion in vocational agriculture to include training in non-farm agricultural occupations, (5) teachers do not desire to share equipment and facilities with other vocational teachers, and (6) both teachers and administrators expressed agreement to the assumption that the traditional supervised farm training program must be modified or changed to meet current demands in occupational training.

From the findings of this study it was concluded that: (1) teachers and administrators have presently failed to achieve a highly coordinated plan for maintaining a uniform program of vocational agriculture, (2) teachers are sensitive to possible criticism in those areas relative to personal integrity and soundness of the present vocational agriculture program, (3) both teachers and administrators are fundamentally in agreement with the premise that the vocational agriculture program should be expanded into the areas of non-farm agricultural occupations, (4) teachers and administrators are convinced that the Future Farmers of America organization will continue to be instrumental in motivation and guidance which stimulate participating students to become leaders in agriculture, (5) teachers will continue to assume an effective role as educational leaders in young and adult farmer education, (6) administrators evidenced a greater acceptance to change than was shown by their teachers, (7) teachers and administrators are more nearly in agreement with statements concerning the supervised farm training program than with those of any other area included in the study, (8) teachers evidenced a more conservative attitude toward innovations in the vocational program, and (9) in certain areas of the program teachers were so diversed in their responses that a need for inservice education and supervision was strongly indicated.

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BRYANT, BERT, JR. A Study of Opinions and Attitudes Expressed by County Extension and Vocational Agriculture Teachers in Oklahoma Regarding the Nature and Extent of Desirable Cooperative Working Relationships. Report, M. S., 1965, Oklahoma State University. 26 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose. -- To survey the opinions and attitudes of county extension agents and vocational agriculture teachers in Oklahoma regarding the desirable cooperative working relationships and the inducements and deterrents involved.

Method. -- This study was conducted through the use of a questionnaire which was sent to each county agent and vocational agriculture teacher who work in the same town in the state of Oklahoma. There are seventy-two such couples in the seventy-seven counties in Oklahoma.

Findings. -- Opinions collected showed that the subject of this study was of keen interest to those questioned. According to the response the county agents and agriculture teachers in Oklahoma meet from two to five times each year to plan joint programs in agriculture. The majority of the agents and teachers felt this was often enough. The most common activities of joint participation was fairs, shows and contests. Though the evidence indicated the agriculture teachers and county agents participate in joint adult education programs, it was felt by a significant number that more coordination in this area would help. A larger percentage of county agents felt joint participation should be increased than did the agriculture teachers. The strongest single deterrent to cooperation is evidently the policy of requiring boys to drop out of 4-H Club when they enter vocational agriculture. The strongest anti-cooperation attitude was the attitudes of "win by any means." Subjective reporting of accomplishment of students and "Glory Seeking" by agents and teachers were indicated as strong irritants in relationships.

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BUTLER, ROY LYNN. A Study of Employment Opportunities and Characteristics Desired for Gainful Employment in Ornamental Horticultural Occupations in Oklahoma. Report, M. S., 1965, Oklahoma State University. 35 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose. -- To determine probable employment opportunities and characteristics desired of potential employees needing agricultural competencies in ornamental horticultural occupations at various levels of employment during the next five years in Oklahoma.

Method. -- Personal interviews were conducted with managers of 112 randomly selected greenhouse and nursery business establishments throughout Oklahoma.

Findings. -- Opportunities appear fairly abundant for the various levels of employment in ornamental horticultural businesses in Oklahoma. The greatest

opportunities appear to be at the skilled and semi-skilled levels. Managers responding recognized the need for increasing wages at various levels in order to compete with other industries for high quality personnel. Age was not recognized as a limiting factor for employment if good health and adequate knowledge was possessed by potential employees. High school graduation was most often cited as the desired minimum level of educational attainment. Some college and post-high school technical education were recognized as desirable for positions at a number of levels. A college graduate was desired in most professional and managerial positions. Employees with either a farm background or no preference of residential background with a part-time experience in all ornamental horticultural business were desired in most cases. It appears that few, if any, restrictions are imposed concurrent to obtaining license for the business operation. Ornamental horticultural businesses use their own training programs or training offered by the industry in most cases. Offerings by an agricultural college are used to advance on the job or to secure a related position. Many managers placed great emphasis on the need for more training programs within reasonable proximity of their business. A projected total of 644 employees, qualified with above a high school education, will be needed in ornamental horticultural businesses in the next five years. Many managers expressed concern regarding the possibility that potential employees with the desired training would not be available.

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CAVIN, WILLIAM A. Survey of Land and Livestock Laboratories in Vocational Agriculture Departments in Oklahoma. Report, M. S., 1965, Oklahoma State University. 61 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose. -- To investigate selected characteristics and uses of land and livestock laboratories in Oklahoma departments of vocational agriculture.

Method. -- This study was conducted by using a questionnaire that was mailed to departments with laboratories. The initial instrument was developed and mailed to each teacher of these departments. Self-addressed, stamped envelopes were enclosed with the questionnaires.

Findings. -- Appreciable amounts of the teacher's time are required to plan activities for individual student participation, supervise and assist students in conducting land and livestock laboratory activities, make necessary purchases, and many other additional duties and responsibilities incurred in conducting an educational program.

Many land and livestock laboratories are now providing supervised experiences in agriculture for students who might not otherwise enroll in programs of vocational agriculture.

Land and livestock laboratories do provide an excellent opportunity for participation by students who have little or no opportunity to gain practical experiences in agriculture. If properly operated and managed, laboratories can provide a basis for well-planned and supervised projects and activities which may not be easily arranged on individual farms and ranches.

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CEPICA, WILLIAM J. Predicting College Success in the School of Agriculture at Texas Technological College from Measures of High School Achievement. Thesis, M. S., 1965, Texas Technological College. 48 p. Library, Texas Technological College, Lubbock.

Purpose. -- (1) To determine if there are particular courses taken by high school graduates which are especially valuable in preparing a student for work at Texas Technological College. (2) To determine what high school background information can be utilized to predict a student's probable scholastic achievement in the first semester, during the first year, and his final graduation from Texas Technological College. The variables used were as follows:

a. Total SAT score.
b. Verbal SAT score.
c. Mathematics SAT score
d. Mean grade of all high school English courses.
e. Mean grade of all high school mathematics courses.
f. Mean grade of all high school social science courses.
g. Mean grade of all high school physical and biological science courses.
h. High school average of all academic courses completed.
i. High school quartile rank.

Method. -- The sample for this study involved students who matriculated in the freshman class in the School of Agriculture at the Texas Technological College from the Fall of 1962, through the Spring of 1964. Complete data were available for 215 cases which were then analyzed in the study. The data were processed through an electronic computer to obtain correlations between the variables which were arranged in a nine-variable matrix.

Findings. -- The best indicators of first year college achievement were high school quartile, high school social science grade averages, and the College Entrance Examination Board-Scholastic Aptitude Test (SAT).

The students who finished in the upper quartile of their high school graduating class attained a considerably higher college grade point average than those ranking in the lower three quartiles. Sixty and four-tenths percent of the students in the upper quartile attained a grade point average of 2.50 or better; whereas, only 11.5 percent, 5.4 percent, and 3.1 percent of those students in the second,

third, and fourth quartiles respectively, were able to attain the same college grade point average. A correlation coefficient of -.625 was obtained.

The correlation coefficient obtained between high school social science grades and college grade point average was .597. Sixty-four and seven-tenths percent (44 of 68) of the students who had below an 80 average in high school social sciences attained a college grade point average of less than 1.50. In comparison, 32 percent (33 of 103) of the students with an 80 to 89.9 social science average, and only 9.1 percent (4 of 44) of the students with a 90 or above average, attained below a 1.50 grade point average.

A strong relationship (r = .575) existed between the total score on the Scholastic Aptitude Test and college grade point averages. Six and five-tenths percent (3 of 46) of the students who entered college with a total SAT score of 699 or less attained a grade point average of 2.50; whereas, 45.3 percent (34 of 75) of the students who entered college with a total SAT score of 900 and above attained a 2.50 grade point average. Ten and seven-tenths percent (10 of 94) of the students entering college with a total SAT score of 700 to 899 attained a grade point average of 2.50 or above.

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CLARK, WYMAN AUDREY. A Study of the Attrition of Alabama Teachers of Vocational Agriculture. Non-thesis study, Master of Education, 1965, Auburn University, Auburn, Alabama. 24 p. Department of Vocational, Technical and Practical Arts Education.

Purpose. -- To study the attrition of teachers of Vocational Agriculture in Alabama that left the profession during the period since July 1, 1960, to June 30, 1964.

Method. -- Questionnaires were formulated and mailed to sixty-three former teachers of Vocational Agriculture who left the profession between July 1, 1960 and June 30, 1964.

Findings. -- (1) The factors which caused the most teachers of Agricultural Education to leave the profession were opportunity for advancements and financial reward. (2) At least 34 percent of the teachers left the profession within the first 2 years. (3) The occupation engaged in by more former teachers was some aspect of agriculture business. (4) The mean length of tenure before leaving was 6.71 years. (5) A majority of the agriculture teachers indicated that Agricultural Education was adequate in preparing them for their occupation.

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CURTIS, C. M. AND HUTCHINSON, J. H. Occupational Opportunities and Training Needs of Youth for Non-farm Agricultural Jobs in the Lafayette Area,

Vo. Ag. Ed. Series No. 12, 1965, Louisiana State University. 60 p. Vocational Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose. -- The primary purpose of the survey was to identify non-farm agricultural businesses and agencies having one or more job titles requiring competence in agricultural subjects and to secure specific qualifications for jobs as well as determine the kinds of training in agriculture associated with job entry.

Method. -- (1) A questionnaire, or survey form was developed. In order to coordinate the thinking of vocational educators in Louisiana with that of the other States, representatives of Louisiana State University attended several conferences of national and regional significance. As a result, the survey instrument used in the Lafayette study was like those utilized in similar studies in 44 other States.

(2) A complete list of agriculturally oriented firms, organizations, and industries was developed for the Lafayette area. This list was refined so as to include only those most likely to have personnel who need knowledge or skill in agricultural subjects in order to make positive contributions to the organization. Information from which this list was compiled came from the Yellow Pages of the Lafayette Southern Bell Telephone Directory, trade associations, records of the Lafayette Chamber of Commerce, and the local Division of Employment Security.

(3) The Dean of the College of Agriculture, Louisiana State University, directed a letter to each of the establishments on the list, informing them of the purpose of the survey.

(4) A group of well-qualified persons was recruited by the local Division of Employment Security as prospective interviewers. These persons were screened and five were employed and trained by the University personnel to make the survey. The Division of Employment Security in Lafayette provided facilities for training and basing the survey team during the two week period.

(5) Each of the five interviewers was assigned a group of firms to survey. Procedure called for them to make arrangements by telephone several days in advance of the survey.

Findings. -- (1) There were 103 businesses and agencies surveyed within the Lafayette Area. These organizations employed 2,761 workers--of which 622 were required to have competencies in agriculture. Within a five year period the number of workers needing these skills and knowledge is expected to rise to 688.

(2) The 622 workers were found in 125 job titles. Five years from now it is expected that the number of job titles will increase to 140.

(3) Insofar as the levels of employment were concerned, unskilled, managerial, and skilled levels of employment, in that order, listed the largest numbers

of workers. Unskilled workers were found in the most numbers in the Ornamental Horticulture, and Crops, Forestry and Soil Conservation Families.

(4) Firms interviewed indicated that the minimum age for replacing present employees who would leave the businesses, would be not younger than 25 years. This indicates that employers would in most cases discriminate against hiring youngsters "fresh from high school" if more mature applicants were available. Generally speaking, 43 years of age is considered the maximum age by most employers for replacing personnel or hiring additional persons.

(5) The survey indicated that employees generally are paid in direct relation to their background of training and experience. Practically all employers felt that a well trained employee is their best investment, and are ready to pay higher wages for better trained individuals. Salary increments were not as pronounced in the case of the workers in jobs which require little skill or training.

(6) Employers in non-farm agriculture who are concerned about the residential background of their workers, will almost invariably employ those with farm backgrounds over those who have rural non-farm and urban backgrounds. In the Lafayette area this was true in 88 percent of the cases.

(7) Employee farm experience on a commercial farm is preferable in 65 percent of the jobs in the survey.

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CURTIS, C. M. AND HUTCHINSON, J. H. Occupational Opportunities and Training Needs of Youth for Non-farm Agricultural Jobs in the New Orleans Area, Vo. Ag. Ed. Series No. 9, 1965, Louisiana State University. 64 p. Vocational Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose. -- The purpose of the survey was to identify present and emerging non-farm agricultural occupations for which knowledge and skill in agricultural subjects is a primary factor in effecting job entry.

Method. -- A comprehensive list of agriculturally oriented firms, organizations, and services was developed for the New Orleans area. This list was sifted so as to include only those most likely to include personnel who need knowledge or skill in agricultural subjects in order to make a positive contribution to the organization. Information from which this list was compiled came from the Yellow Pages of the New Orleans Southern Bell Telephone Directory, several trade associations, records of the New Orleans Chamber of Commerce, and the local Division of Employment Security.

Wholehearted and complete cooperation was offered to the survey proposal by the Agricultural Committee of the New Orleans Chamber of Commerce. This

committee assumed the responsibility of contacting each organization on the list, informed them of the plan, and enlisted their support.

The Dean of the College of Agriculture, Louisiana State University, directed a letter to each of the establishments on the list, informing them of the purpose of the survey.

A group of well-qualified young persons was recruited by the local Division of Employment Security as prospective interviewers. These persons were screened and twelve were employed and trained by University personnel to make the survey. The Division of Employment Security in New Orleans provided facilities for training and basing the survey team during the entire three-week period.

Each of the twelve interviewers was assigned a group of firms to survey. Procedure called for them to make arrangements by telephone several days in advance of the actual survey with the owner, manager, or representative of the firm to be interviewed.

Findings. -- (1) There were 253 businesses and agencies surveyed within the New Orleans area. These organizations employed 10,333 workers--of which 1,606 were required to have competencies in agriculture. Within a five-year period the number of workers with these skills and knowledge is expected to rise to 1,741.

(2) The 1,606 workers were found in 241 job titles. Five years from now it is expected that the number of job titles will increase to 278.

(3) Firms interviewed indicated that the minimum age for replacing present employees who would leave the businesses, would be not younger than 25. This indicates that employers would in most cases discriminate against hiring youngsters "fresh out of high school" if more mature applicants were available. Generally speaking 45 years of age is considered the maximum hiring age by most employers.

(4) The survey indicated that employees generally are paid in direct relation to their background of training and experience. Practically all employers felt that a well-trained employee is the best investment their concern can make, and they were ready to pay higher wages for better trained individuals. Salary increments were not as pronounced in the case of the workers in the unskilled jobs. This was true in all occupational families.

(5) It was quite evident that employers were not interested in hiring persons with less than a high school education. A very large percentage (43%) of the jobs involved in this study had requirements which could be fulfilled only by college graduates.

(6) Almost two-thirds of the jobs in the New Orleans area can be filled without regard to the applicant's residential background. Approximately one-third could be best filled with workers with farm backgrounds. Rural non-farm backgrounds are not a factor in worker selection.

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CURTIS, C. M. AND MONDART, C. L.,SR. Occupational Opportunities and Training Needs of Youth For Non-farm Agricultural Jobs in the Baton Rouge Area. Vo. Ag. Ed. Series No. 8, 1965, Louisiana State University. 59 p. Department of Vocational Agricultural Education, Louisiana State University, Baton Rouge.

Purpose. -- The primary purpose of the survey was to identify non-farm agricultural businesses and professional organizations having one or more job titles requiring knowledge or skill in agricultural subjects, and to obtain specific job qualifications, including training in agriculture associated with job entry.

Method. -- As a preliminary procedure, a comprehensive list of agriculturally oriented firms and organizations was developed for the Baton Rouge Metropolitan Area. This list was finalized to include only those businesses having one or more employees with knowledge or skill in agricultural subjects. Information concerning firms was secured from the following sources:

1. Division of Employment Security
2. Baton Rouge Chamber of Commerce
3. Louisiana Department of Commerce and Industry
4. State Chamber of Commerce
5. Various trade associations
6. Yellow Pages of Southern Bell Telephone Directory

The Greater Baton Rouge Chamber of Commerce endorsed the project and gave active support to the survey team, particularly during the preparation stage. The various firms and agencies to be surveyed were advised of the Chamber's endorsement by a letter from the Agricultural Committee. A letter announcing and explaining the purpose of the survey was directed to each establishment by the Dean of the College of Agriculture, Louisiana State University. Additional support was given by the local newspapers, State Times and The Morning Advocate, and Television Station WBRZ.

A group of prospective interviewers was recruited by the local office of the Division of Employment Security. These were screened and six were employed and trained by University personnel in procedures to conduct the survey. The study was completed in a 13 day period under the direct supervision of the University.

Findings. -- (1) The agricultural complex of Baton Rouge was made up of 153 businesses and agencies, employing 4,612 workers, of which 2,495 were required to have competencies in agricultural subjects.

(2) Agricultural workers held a total of 326 different job titles.

(3) Five years hence the number of employees with knowledge and skill in agriculture will increase to 2,608 with an accompanying increase in job titles to 388.

(4) A conformance to the nationwide trend of emphasis in farm and agricultural service was in evidence in the Baton Rouge Area.

(5) The acceptable minimum age for job entry fell at 25 years; while the maximum age of 45 allowed for 20 years of service prior to retirement.

(6) Salaries paid by firms and agencies surveyed were in keeping with those engaged in other segments of the economy. Adequate provisions were in evidence for salary increments with tenure and experience.

(7) Employers indicated that replacement workers would be selected from applicants with high school or college education--only 12 percent of the employees would be replaced by individuals with less than a high school education. One-third of the workers will be replaced from applicants having a college degree or some successful college experience.

(8) The kind of training in agricultural subjects varied according to level of employment and occupational family. Employers were in general agreement that workers in management, supervisory and sales levels must have broad training extending over all agricultural subject areas; while those in the professional, technical, and skilled classifications were expected to have intensive training in the area of their speciality.

(9) Very few limitations besides education and job training were indicated for effecting job entrance, except in the professional classification where a college degree was required. Some of the agricultural agencies were under civil service, and therefore, complied with state or federal regulations governing job entry. Labor union contracts were found in a very small number of firms.

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CURTIS, C. M. AND MONDART, C. L.,SR. Occupational Opportunities and Training Needs of Youth for Non-farm Agricultural Jobs in the Lake Charles Area. Vo. Ag. Ed. Series No. 11, 1965, Louisiana State University. 54 p. Vocational Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose. -- The purpose of the survey was to identify non-farm agricultural businesses and professional organizations having one or more job titles requiring knowledge or skill in agricultural subjects, and to obtain specific job qualifications, including training in agriculture, associated with job entry.

Method. -- A comprehensive list of agriculturally oriented firms and organizations was developed for the Lake Charles Metropolitan Area. The list was finalized to include only those businesses most likely to have one or more employees with knowledge or skill in agricultural subjects. Information concerning firms and agencies was secured from the following sources:

1. Lake Charles Chamber of Commerce
2. Division of Employment Security
3. Various trade associations
4. Yellow Pages of Southern Bell Telephone Directory

Endorsement of the project was extended by the Lake Charles Chamber of Commerce. The various firms to be surveyed were advised of the Chamber's endorsement by a letter from the Agricultural Committee. A letter announcing and explaining the purpose of the survey was directed to each establishment by the Dean of the College of Agriculture, Louisiana State University. Additional support was given by the local newspaper, Lake Charles American Press.

Several prospective interviewers were recruited by the local office of the Division of Employment Security. Five were employed and trained by University personnel in procedures to conduct the survey. The study was completed in a 12 day period under the supervision of the University.

A list of businesses and agencies to contact was assigned each interviewer. Personal interviews were conducted using a schedule developed in cooperation with representatives from other states interested in the same type of study.

Findings. -- (1) The non-farm agricultural complex was made up of 90 businesses and agencies, employing 1,908 workers, of which 508 were required to have competencies in agricultural subjects.

(2) The 508 agricultural workers held a total of 141 different job titles--five years hence the number of employees will increase to 574--while identifiable job titles will increase to 160.

(3) The Lake Charles survey indicated no recognizable pattern of product or service provided by non-farm agriculture, except that emphasis was given to Farm Service, which is in conformance with national trends.

(4) Current ages of all employees ranged around the 35 year average for all occupational families. The acceptable minimum age for job entry fell at 25 years, while the maximum age was placed at 45. A lack of younger persons seeking employment in agricultural jobs accounted for the entry age of 25, while the maximum age of 45 allowed for at least 20 years of service prior to retirement.

(5) Salaries paid by firms and agencies surveyed were in keeping with those engaged in other segments of the economy. Provisions were in evidence for

salary increments with tenure and experience. Workers were paid according to education, training and responsibility.

(6) Replacement of workers was limited almost entirely to applicants with a high school or college education--only 16 percent of the employees would be replaced by individuals with less than a high school education. Almost one-third of the workers would be replaced from applicants having a college degree or some successful college experience.

(7) The kind of training in agricultural subjects varied according to level of employment and occupational family. Workers in management, supervision and sales were expected to have broad agricultural experience and training extending over all subject matter areas; while those in professional, technical and skilled classifications were expected to have intensive training in the area of their speciality.

(8) Limitations effecting job entrance were confined to education and job training except in the professional classification where a college degree was required. Some of the agricultural agencies were under civil service, therefore, they complied with state or federal regulations governing job entry. Labor union contracts were found in a very small number of firms.

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CURTIS, C. M. AND MUMPHREY, ANTHONY. Occupational Opportunities and Training Needs of Youth For Non-farm Agricultural Jobs in the Monroe-West Monroe Area. Vo. Ag. Ed. Series No. 10, 1965, Louisiana State University. 57 p. Vocational Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose. -- The primary purposes of the survey were: (1) to identify non-farm agricultural businesses and professional organizations having one or more job titles requiring competence in agricultural subjects, (2) to secure specific qualifications for jobs, and (3) to determine the kinds of training in agriculture associated with job entry and maintaining competence in employment.

Method. -- A comprehensive list of all agriculturally oriented firms and businesses was developed for the Monroe-West Monroe Area; the list was evaluated and finalized to include those firms having one or more employees with knowledge or skill in agricultural subjects. This list was supplemented with business listings secured from the Yellow Pages of the local Southern Bell Telephone Directory, the several trade associations, records of the Monroe and West Monroe Chambers of Commerce, and the local Division of Employment Security.

The Agricultural Committee of the Chamber of Commerce gave its endorsement to the study. Officers of the Chamber corresponded with owners or representatives of the business concerns, thus facilitating subsequent interview

procedures. In addition, the Dean of the College of Agriculture, Louisiana State University, sent a letter of explanation concerning the study to each firm. The local newspapers; namely, The Monroe Morning World and Monroe News Star, gave supporting publicity for this investigation.

To establish a platform from which to launch the study, the local Division of Employment Security recruited a group of prospective interviewers. This group was reduced to six and trained by University Personnel in the proper procedures to conduct the study. The instruments were completed in an eleven-day period under the direct supervision of University personnel.

Each interviewer was given a list of firms to survey; each worker making his own arrangements with the employer or his representative relative to the time of interview. All information pertinent to the investigation was noted, using the survey instrument developed for the State-wide study.

Findings. -- (1) As a result of this investigation 108 agricultural firms were surveyed for occupational opportunities in off-farm agricultural occupations. These agricultural businesses employed 4,110 individuals; 1,225 of these workers were required to have competencies in agriculture.

(2) Employers or their representatives projected an increase of 117 workers in all occupational families five years hence.

(3) A total of 222 job titles were found in the 108 agricultural businesses; this number was expected to increase to 261 five years hence.

(4) The minimum average job entry age at all levels of employment was centered at 25 years; prospective employees past the age of 45 were not in demand in the agricultural business of this Area.

(5) The median beginning salary for the skilled worker was more than $100 higher monthly than that of the unskilled worker; the unskilled worker did not make as impressive a gain in salary level with the increase of tenure on the job as the skilled worker.

(6) Managerial positions commanded beginning salaries in excess of $450 monthly, with stimulating salary increments with longevity in employment. This fact was frequently found to be true in supervisory positions, also.

(7) Sales positions in all occupational families offered very attractive beginning salaries and significant increases in salary with longevity in years of service on the job.

(8) Business executives catered to the high school graduate in positions in nearly all occupational families in selecting persons entering agricultural occupations; almost 50 percent of the 1,225 persons having agricultural competencies were found in this designation.

(9) Twenty-five percent of the workers with agricultural competencies were required to have some college training--11 percent of them were college graduates.

(10) More than 70 percent of the employees having agricultural competencies were required to have an educational background at the high school graduate level or beyond.

(11) The greatest need for familiarity with agricultural subject was in the managerial, supervisory, sales and skilled levels of employment.

(12) Managers of an agricultural business were expected to be familiar with the entire aspect of the business.

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CURTIS, C. M. AND MUMPHREY, ANTHONY. Occupational Opportunities and Training Needs of Youth for Non-farm Agricultural Jobs in Shreveport--Bossier City Area. Vo. Ag. Ed. Series No. 7, 1965, Louisiana State University. 60 p. Vocational Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose. -- The principal purpose of the survey was to identify non-farm agricultural businesses and professional organizations having one or more job titles requiring knowledge or skill in agricultural subjects, and to obtain specific job qualifications, including training in agriculture associated with job entry.

Method. -- As a preliminary procedure in the structure for studying the metropolitan area, a comprehensive list of all agriculturally oriented firms and organizations was developed for the Shreveport-Bossier City area; this list was evaluated and finalized to include only those businesses having one or more employees with knowledge or skill in agricultural subjects. The list was supplemented with business listings obtained from the Yellow Pages of the local Southern Bell Telephone Directory, the several trade associations, records of the Shreveport Chamber of Commerce, and the local Division of Employment Security.

Endorsement of the proposed study of these business establishments was extended by the Agricultural Committee of the Shreveport Chamber of Commerce. Officials of the Chamber corresponded with each establishment in the study. In addition, a letter explaining the purpose of the survey was sent to each business by the Dean of the College of Agriculture, Louisiana State University. Additional support was derived from the publicity given by the local newspapers; namely, The Shreveport Times and Shreveport Journal and the local radio broadcasting stations KWKH and KEEL.

As a second phase of the study, a group of prospective interviewers was recruited by the local Division of Employment Security. They were finalized to

six and trained in procedures to conduct the study by University personnel. The surveys were completed in a 15 day period under the direct supervision of University and State Department of Education personnel.

Each interviewer was given a group of firms to contact relative to acceptable time schedules for interview. All information pertinent to the study was recorded, using the survey instrument developed for the State-wide study.

Findings. -- (1) Two hundred and twenty-one agricultural firms were surveyed in the Shreveport-Bossier City area. These firms employed some 4,338 individuals; of this number approximately 40 percent or 1,717 had competencies in agriculture and 197 additional employees who possess agricultural skills will be needed in the next five years.

(2) Some 294 job titles were indicated by employers in all of the eight occupational families, with an increase of only 22 job titles in the next five years.

(3) The mean minimum age for job entry in all occupational families and for practically all levels of employment is focused around 25. The mean maximum age for entry is 45.

(4) In most occupational families, beginning salaries at the professional level of employment were lower than at the technical, managerial, or supervisory levels.

(5) The median monthly salary for skilled occupations was nearly $100 more than the unskilled for Farm Supplies and Equipment; Wildlife and Recreation; and Farm Service.

(6) Sales, as a level of employment, commands a strong position compared to beginning salaries in other occupational families. Sales commissions may have a significant effect in boosting the beginning worker's salary.

(7) The managers or representatives of non-farm agricultural occupations surveyed in this study did not desire to employ individuals with less than a high school education.

(8) A preference for some college was expressed for more than 35 percent of the employees in all occupational families.

(9) A most significant fact was revealed indicating that nearly 77 percent of the total employees possessed a high school education and above.

(10) The managerial, supervisory, and sales levels of employment in most occupational families generally required more familiarity with specific agricultural subject areas.

(11) Even the semi-skilled and unskilled workers were required in many instances to be familiar with most agricultural subject areas.

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DURHAM, GEORGE H., JR. A Study to Compare IQ Scores of High School Freshmen Enrolled in Vocational Agriculture With Those Not Enrolled. Non- thesis Study, 1965, Department of Agricultural Education, Clemson University, Clemson, South Carolina.

Purpose. -- The purpose of the study was to determine (1) if vocational agriculture in South Carolina was enrolling its proportionate share of the high ability students, (2) if vocational agriculture was holding the more capable student, and (3) to compare the IQ of rural and non-rural students enrolled in Agriculture I.

Method. -- Twenty-four South Carolina high schools offering vocational agriculture were selected on a random basis. Teachers of vocational agriculture in these schools were asked to record the type and series of IQ test used in the school and the IQ scores of each of the male freshmen students of the entire class of 1963-64, the IQ of students enrolled in Agriculture I in 1963-64 who were not included in freshman enrollment, and the IQ of students enrolled in Agriculture II, 1964-65, who were not freshmen enrolled in Agriculture I, 1963-64. Teachers were also asked to indicate enrollment in vocational agriculture for the freshmen of the 1963-64 class and the rural farm, rural non-farm, or non-rural background of each. Freshmen enrolled in Agriculture I in 1963-64 that were enrolled in Agriculture II in 1964-65 were also indicated. The data were then analyzed to determine statistical significance of the differences in IQ between the various groups.

Findings. -- In the eighteen schools responding, inspection revealed that in all but three of the schools, the average IQ for students enrolled in vocational agriculture was lower than the average IQ for the freshmen male students. Statistically, this difference was significant in seven schools using the California Test of Mental Maturity and the Henmon Nelson Test of Mental Ability. In eleven schools using the Otis test and the SRA Primary Ability test, this difference was not significant. There was not any significant difference in ability as measured by the IQ score between rural and non-rural students enrolled in agriculture. It was also determined that agriculture was holding the more capable students. This was indicated by the higher average IQ in Agriculture II over the average IQ of Agriculture I of the previous year.

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EASLEY, WILLIAM B. A Study of the Opinions of Teachers of Vocational Agriculture in Virginia Concerning the Status of Approved Practices in Crop Enterprises, Poultry Enterprises, and Beef Enterprises. Thesis, M. S., 1964, Virginia State College. 120 p. Library, Virginia State College, Petersburg.

Purpose. -- To determine the status of certain approved practices for enterprises of crops, poultry and beef as reported by teachers of vocational agriculture.

Method. -- A list of Approved Practices was prepared by the writer. The list was then evaluated and refined by a committee of agricultural specialists and teachers of vocational agriculture. The revised list was then presented to three farmers for further review. The revised list was finally administered to fifty-seven individuals by a like number of teachers of vocational agriculture.

Findings. -- (1) The employment of approved practices was more in evidence in those instances where the enterprise in question represented the major source of the farmers' income.

(2) The adults, in general, used a greater percentage of the approved practices than either the young farmers or the high school students.

(3) The value of approved practices put into operation was reported to be more average than either high or low.

(4) Too many approved practices which are normally associated with efficient production were not being used.

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FAJARDO, PELAGIO S. A Study of the Intra- and Co-Curricular Activities of Certain Groups of Teachers in Agricultural Schools in the Philippines. Report, M. S., 1965, Oklahoma State University. 57 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose. -- To determine the intra- and co-curricular activities of teachers of vocational agriculture in Agricultural Schools in the Philippines. Its main purpose was to obtain information as the basis in developing a practical curriculum for prospective teachers of vocational agriculture.

Method. -- Information was obtained from ninety-five teachers of vocational agriculture distributed from nine agricultural schools in Luzon and from ten selected panel of experts of the Division of Agricultural Education, Bureau of Public Schools, Manila. Two sets of questionnaires were the basis of this study.

Findings. -- This study indicated that vocational agriculture teachers were just as active in intra-curricular as in co-curricular activities. Those with majors in Agronomy or Animal Science had comparable activities with those who had had teacher training in Agricultural Education.

Women in vocational agriculture showed a waning acceptance in the profession. The small number of women in this area had their activities confined to classroom instruction.

The role expectation of the panel of experts concurred with the situations presented in this study.

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GANT, CECIL M., JR. A Status Study of District F F.A. Public Speaking Winners in Alabama, 1958-65. Non-thesis Study, Master of Education, 1965, Auburn University, Auburn, Alabama. 28 p. Department of Vocational, Technical and Practical Arts Education.

Purpose. -- To study the status of district F.F.A. public speaking winners in Alabama in the years 1958-65.

Method. -- A simple questionnaire was formulated and mailed to local advisors of district winners. Data were collected and analyzed from the returned questionnaire.

Findings. -- (1) Of the 30 speakers, 36 percent were enrolled in college, 30 percent had attended college and 16 percent had graduated from college. (2) Of the total, 77 percent were rated by their vocational agriculture teachers as having been in the upper 1/3 of their high school classes; 23 percent in the middle 1/3 and none in the lower 1/3. (3) Of the total, 83 percent had held Chapter F.F.A. offices, 16 percent had not. (4) Of the total speaking winners, 43 percent were post-high school students, 16 percent were in military service, 16 percent employed in business, 10 percent in farming, 6 percent in off-farm agriculture, 3 percent in industry and 3 percent in religious occupations. (5) Of the 30 speakers, 93 percent participated actively with a participation median of 3 in school activities other than F.F.A. Only 5 percent did not. (6) Of the total speakers, 50 percent completed 3 years of Vocational Agriculture instruction, 33 percent, two years; 13 percent, four years; and 3 percent, 1 year.

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GRANBERRY, ROYCE. A Survey of the Members of the Commerce, Texas, Young Farmer Chapter to Determine the Common Factors Associated with Their Attendance at Meetings. Non-thesis Study, 1965, East Texas State University. 24 p. Department of Agriculture, East Texas State University, Commerce.

Purpose. -- The purpose of this study was divided into three major areas to find out: (1) reasons for attending the regular meetings, (2) reasons for the absences at the regular meetings, and (3) factors that would cause the members to be more interested in attending regular meetings.

Method. -- The data for this study were secured by a questionnaire that was mailed directly to each member of the Commerce Chapter. The questionnaire consisted of nine questions that would help furnish information needed for this study. Of the 13 members contacted, eight answered the questionnaire and returned it. The data were further compiled into six tables which were analyzed in detail.

Findings. -- This study of attendance factors reveals that reasons for not attending meetings does not rest in the content of the programs offered, but merely in the time conflicts with other meetings for part-time farmers and in the conflict of working hours and meeting time for full-time farmers during the planting and harvesting seasons.

There are no clear-cut indications from the study of any best solution since the circumstances confronting individual young farmers will vary. It is quite evident that the major reasons for attendance of the Commerce young farmers hinges primarily on the educational values that they receive from the meetings, and secondarily on the social aspects connected with the programs.

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GREGORY, HAROLD CARA. An Agricultural Credit Education Program for Students of Vocational Agriculture in Tennessee. Thesis, M. S., 1965, University of Tennessee. 96 p. Library, University of Tennessee, Knoxville.

Purpose. -- To determine the need for providing an in-service training program in agricultural credit for teachers of vocational agriculture in Tennessee, and to discuss areas in which to improve the instruction in agricultural credit for students of vocational agriculture.

Method. -- Twenty-nine vocational agriculture departments were selected at random for the study. An examination was administered to 1489 students and 29 teachers to determine the agricultural credit knowledge of teachers and students.

Representatives of twelve lending agencies and twelve educators were selected from the three regions of the state to determine the order of objectives which should be followed in teaching agricultural credit.

The Q sort was used to obtain group opinions of lenders and educators. Behavioral outcomes gleaned from credit literature were utilized in the Q sort.

A survey was conducted to sample the teaching procedures and materials used by vocational agriculture teachers in educating students to the use of credit.

Findings. -- A majority of the 29 teachers believed that over 75 percent of their students would profit from studying agricultural credit. Ninety percent of the teachers reported that agricultural credit training was emphasized too little. Only 10 percent of the 29 departments had over ten different references on credit. The majority of these were either furnished by the Production Credit Association or by the Federal Land Bank Association.

All but one of the 29 teachers desired assistance in teaching credit. Thirty-eight percent of the teachers reported they did not receive sufficient college training for teaching agricultural credit; 56 percent desired in-service training in credit.

According to the Q sort analysis of opinions of lenders and educators, agricultural credit education should be emphasized in the following order: (1) uses, (2) cost and repayment, (3) general information, and (4) sources of credit.

According to students' knowledge of agricultural credit and departmental surveys, the present training emphasized credit in the following order: (1) sources, (2) uses, (3) cost, (4) repayment, and (5) information about credit.

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GRIMES, JAY P. A Comparison of Academic Performance of Transfer and Non-Transfer Students in the Department of Agricultural Education at Texas A&M University. Paper, M. Ed., 1965, Texas A&M University. 44 p. Department of Agricultural Education, Texas A&M University, College Station.

Purpose. -- (1) To determine if significant differences existed between the grade point averages of agricultural education students who originated their degree programs at Texas A&M University and of students who entered the same program after transferring at least thirty-six credit hours from other Texas institutions; (2) To determine if significant differences existed between the scores made on the Graduate Record Examination by agricultural education students who originated their degree program at Texas A&M University and by students who entered the same program after transferring at least thirty-six credit hours from other Texas institutions.

Method. -- Data were obtained from the files of the Department of Agricultural Education and the Counseling and Testing Center, Texas A&M University. Information was tabulated on a total of 81 students. Of this number, 41 were classified as transfer students, 40 as non-transfer. A series of five null hypotheses were formulated and tested by a "t-test" and "point-biserial correlation."

Findings. -- Significant differences at the one percent level of confidence were indicated in four of the five factors considered.

A comparison of the first derived grade point average, a figure representing the grades made at Texas A&M by the non-transfer students during their first two calendar years of attendance and the grades made by the transfer students while attending other Texas institutions, indicated that, as a group, the transfer students began the two years preceding graduation with appreciably higher grades than did the students of the non-transfer group.

There appeared to be no significant difference between the two groups in a comparison of the second derived grade point average, a figure representing the grades obtained by students of both groups in courses taken at Texas A&M during the two calendar years immediately preceding their graduation.

When the three factors taken from the Graduate Record Examination; verbal score, quantitative score, and advanced test in education score, were considered significant differences were indicated favoring the students of the non-transfer group.

It was concluded that the differences were the result of causes other than chance.

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GUIDRY, BENOIT. A Comparison of College Performance of Students With and Without Vocational Agriculture at the University of Southwestern Louisiana, 1950-1959. Thesis, M. S., 1965, Louisiana State University. 71 p. Library, Louisiana State University, Baton Rouge.

Purpose. -- The purpose of the study was to compare the college academic achievement and other college performance of former vocational agriculture students with students who had other high school courses of study. Two hundred and forty-eight students were included in this study. All students involved in the study attended the University of Southwestern Louisiana.

Method. -- The information used to conduct the study was secured from the permanent student record files in the Office of the Registrar, University of Southwestern Louisiana. Only male students who attended the University from 1950 through 1959 were used in the study.

Findings. -- The data reveal that the students who had high school vocational agriculture achieved as well in all respects as students who did not have vocational agriculture. The over-all average for the two groups was 1.284 for the group of former vocational agriculture students and 1.285 for the group who did not have the vocational agriculture.

The data also reveal that the size of high school from which a student graduated had no effect upon college achievement.

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HOLIMAN, GARY L. An Investigation Concerning Possible Promotion of Adult Farmer Classes in the Athens, Texas, Independent School District. Non-thesis Study, 1965, East Texas State University. 27 p. Department of Agriculture, East Texas State University, Commerce.

Purpose. -- The purpose of this study is to make a tentative investigation concerning possible promotion of adult farmer courses in the Athens school district, with major emphasis placed on whether farmers desire such a program, conflicts encountered with other adult organizations, and possible procedures to use in the establishment of such adult courses.

Method. -- The procedure used in collecting data for this problem consisted of three methods: (1) Personal interviews--private talks with various individuals concerning their views and ideas about adult agricultural education; (2) Questionnaires--typewritten questionnaires were distributed primarily among adult farmers to gather collective data to determine their interest and probable need for adult courses; and, (3) Personal interview and questionnaire combination--private conferences followed up by obtaining worthwhile information by using a standard questionnaire.

Findings. -- In the majority of cases, the study revealed that both part-time and full-time farmers were interested in broadening their knowledge of their particular farming operation; this was true of farmers living in both rural and urban areas.

Further findings showed that many of the adult farmer educational needs were being taken care of by other agencies since Athens is a county-seat town.

The research indicated that the local agriculture department is handicapped with regards to shop and classroom facilities. However, the study showed numerous opportunities for a progressive adult agricultural program which has careful planning and definite objectives.

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MILLER, TEXTON R. Teacher Adoption of a New Concept of Supervised Practice in Agriculture. Non-thesis Study, 1965, North Carolina State University. 30 p. Department of Agricultural Education, North Carolina State University, Raleigh.

Purpose. -- Adoption-level theory was utilized to measure the progress of teachers of agriculture toward adoption of a new concept of supervised practice. The new concept emphasized a modern definition of agriculture, an enlarged role of teacher and school administration in providing supervised practice at the school, and the provision of supervised practice in all major learning areas of the agriculture curriculum.

Method. -- A special instrument was developed to measure the adoption-levels of teacher acceptance in terms of (a) awareness, (b) interest, (c) evaluation, (d) trial, or (e) adoption of the new concept. The primary value of this scale resides in its relationship to communication media. Researchers such as Beal and Bohlen have supported the proposition that the effectiveness of various communication media varies with the stage of adoption of the recipient.

A 10 percent random sample of North Carolina teachers of agriculture was drawn. Data were obtained by using designed instruments in personal interviews with the sample of 47 teachers.

Findings. -- After 17 months of exposure to the concept, two-thirds of the teachers had reached the "evaluation" stage of adoption, with half of these ready to begin the "trial" stage. An additional 17 percent were found beyond this point.

Of ten variables tested for relationship to adoption-level only "teaching practices" showed as much as a "moderate" correlation.

Factors of age, experience and attitude toward supervised practice and vocational agriculture tended to correlate positively with adoption level, but not significantly.

Tendencies toward negative correlation were noted between adoption level and (1) size of school, (2) adequate supervised practice opportunities at home for students, and (3) teacher attitude toward vocational education generally.

Because a majority of teachers were found at the "evaluation" adoption-level stage, it was recommended that further implementation of the concept be encouraged by means of group discussions and pilot programs rather than mass media.

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MONDART, C. L., SR. AND CURTIS, C. M. Occupational Opportunities and Training Needs of Youth for Non-farm Agricultural Jobs in Alexandria-Pineville Area. Vo. Ag. Ed. Series No. 4, 1965, Louisiana State University. 63 p. Vocational Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose. -- The principal purpose of the survey was to identify non-farm agricultural business and professional organizations having one or more job titles requiring knowledge or skill in agricultural subjects, and to obtain specific job qualifications, including training in agriculture associated with job entry.

Method. -- A comprehensive list of agriculturally oriented firms and organizations was developed for the Alexandria-Pineville community and refined to include only those most likely to have one or more employees with knowledge or skill in agricultural subjects. This action was supported by information obtained from the Yellow Pages of the local Southern Bell Telephone Directory, the several trade associations, records of the Alexandria-Pineville Chamber of Commerce, and the local Division of Employment Security.

Endorsement of the proposal to survey these establishments was extended by the Agricultural Committee of the Alexandria-Pineville Chamber of Commerce. Officials of the Chamber advised each establishment by letter of such endorsement. A letter explaining the purpose of the survey was directed to each establishment by the Dean of the College of Agriculture, Louisiana State University.

Support of the survey was given by the local newspaper, the Alexandria Daily Town Talk, and both broadcasting companies, Alexandria Broadcasting Company and Dixie Broadcasting Service.

A group of prospective interviewers was recruited by the local Division of Employment Security. These were screened and six were employed and trained by University personnel to make the survey.

Findings. -- (1) There were 139 agricultural businesses and agencies making up the Alexandria-Pineville agricultural complex, employing 3,048 workers, of which 913 were required to have knowledge and skill in agricultural subjects.

(2) The 913 workers held a total of 224 different job titles--five years hence the number of employees will increase to 975, while identifiable job titles will increase to 252.

(3) Employees at the management, skilled, and professional levels were in greatest numbers, with fewer in the unskilled, sales, semi-skilled, supervision, technical, and office occupations.

(4) There was a definite trend in all establishments to fix minimum and maximum age for job entry: a minimum of age 25 for entry and a maximum of age 45. Age 25 was preferred for job entry largely because of the lack of younger persons applying for work with qualifications desired, while maximum age 45 was indicated as being low enough to obtain at least 20 years of service from the employee.

(5) Commensurable salaries were paid according to levels of employment, with workers at the professional, managerial, supervisory, skilled, and sales levels drawing higher salaries. Provisions were made for salary increments with tenure, except for the unskilled.

(6) Replacement of workers was limited almost entirely to applicants with a high school or college education, except for the unskilled. More than one-third of the workers will be replaced when vacancies occur from applicants having a college degree or at least an appreciable amount of successful college experience.

(7) A similar pattern was followed by all businesses and agencies in specifying the areas of subject matter in agriculture required of employees at the different employment levels. Workers in management, supervision, and sales were expected to have broad agricultural experience and training extending over all subject matter areas; while workers at the professional, technical and skilled levels were required to have specialized training in a specific area or a component of an area, since a special kind of service was performed.

(8) There were little or no limitations on entering the various job titles found in all occupational families, except where a college degree was required for a recognized profession. A few of the agricultural agencies were under Civil Service regulations governing job entry; also, a few businesses had contracts with labor unions, but no labor law restrictions were described as effecting job entry.

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MONDART, C. L., SR. AND CURTIS, C. M. Occupational Opportunities and Training Needs for Non-farm Agricultural Jobs in the Metropolitan Areas of Louisiana. Vo. Ag. Ed. Series No. 6, 1965, Louisiana State University, Department of Agricultural Education, Louisiana State University, Baton Rouge.

Purpose. -- (1) To identify present and emerging agricultural occupations other than farming and ranching for which instruction in vocational agriculture should be made available. (2) To determine agricultural competencies needed for job entry and advancement by occupational families and level of employment. (3) To determine special job characteristics and requirements, such as age of entry, salaries or wages, formal education, farm experience, residential background, legal restriction and licensing, and a description of work to be done by employees holding job titles.

Method. -- Interview schedules were administered to 1,067 Agri-businesses in the seven metropolitan areas of the State. A comprehensive list of businesses and agencies was formulated that were believed to be agriculturally oriented. If the business or agency indicated that they had one or more employees possessing and applying agricultural competencies that business was made a part of the survey.

Persons conducting the interviews were selected from recruits made available in each city by the Division of Employment Security. Selected personnel were trained and supervised in the collection of data by staff members of the Department of Agricultural Education. One area was under survey at a time, using facilities of the Division of Employment Security, and the aid of local Chambers of Commerce.

Findings. -- (1) In the seven metropolitan areas of Louisiana, a total of 1,067 businesses and agencies comprised a huge farm oriented complex, employing 30,300 workers, of which 9,087 were required to have some knowledge and skill in agricultural subjects for satisfactory job performance--a number that is expected to increase by 479, or 8 percent, over the next five-year period.

(2) The 9,087 workers with agricultural competencies were found holding a total of 1,582 job titles. Over the next five years, this number will expand to 1,795, an increase of 13 percent.

(3) The 1,067 businesses and agencies were engaged in a wide range of business and service operations, especially those dealing directly with farm and agricultural services.

(4) A definite pattern was followed by all businesses and agencies in fixing minimum and maximum ages for job entry: a minimum of age 26 for first employment and a maximum age of 45. Present age of workers focused upon 35, showing a body of relatively young employees.

(5) Generally, replacement of workers in all occupational families was made from applicants having a high school education, plus some post-high school training. Only about one in six workers with less than a high school diploma was considered employable. Taking into account all professional employed workers in the areas surveyed, one in four prospective employees was expected to have a college degree.

(6) The composition of subject matter in agriculture required of employees varied according to the work performed in each occupational family, although certain similarities existed: (a) generally, broad coverage of subject matter was required of all workers above the semi-skilled and unskilled levels; (b) employees at the management and supervisory levels were widely knowledgeable, in addition to having specialized knowledge in relation to a particular business; and (c) workers at the professional, technical, and skilled levels possessed knowledge and skill in a specific subject matter area, or a component part of an area.

(7) Almost without exception, employers expressed a need for trained workers, placing a premium upon education, training, and skill. Significant emphasis was placed upon occupational training obtained prior to job entry.

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NICHOLAS, FREDDIE W. A Follow-Up Study of a Group of Selected National F.F.A. Foundation Award Winners of the Virginia Association of New Farmers of America, 1953-1962. Thesis, M. S., 1965, Virginia State College. 83 p. Library, Virginia State College, Petersburg.

Purpose. -- The purpose of this study was to ascertain by systematic investigation the number of National Establishment in Farming Award Winners (1953-1962) of the Virginia Association of New Farmers of America who have occupational pursuits in the field of agriculture.

Method. -- A questionnaire was developed which comprised 70 check-areas in the categories of personal history, residential status, education, awards won, occupation, value of investments and evaluation. The questionnaires were executed by 48 award winners under the supervision of the local teachers of vocational agriculture.

Findings. -- Twenty-seven of the 48 young men who completed the questionnaire were living on the farm at the time of this investigation, and approximately two-fifths of the on-farm group were engaged in production agriculture.

With reference to the 21 young men who were not living on the farm, nine were purchasing farms, five were participating in farming programs, two had acquired full farm ownership, and one was working for wages with an intent of buying a farm.

The money awarded by the F.F.A. Foundation had been used primarily to finance increases in supervised farming programs and to pursue advanced education.

Recipients of the awards, in general, completed their high school programs of study.

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NORRIS, ROY KYLE. The Agricultural Manpower Needs of Claiborne County, Tennessee. Thesis, M S., 1965, University of Tennessee. 46 p. Library, University of Tennessee, Knoxville.

Purpose. -- To determine the agricultural manpower needs, farm and nonfarm, of Claiborne County, Tennessee.

Method. -- Forty-two agriculturally related businesses were identified for the study. A survey form developed by the State Departments of Education and Employment Security was used to guide personal interview with representatives of these businesses. Information concerning farm male population was obtained from U. S. Census Data. The Hamilton-Perry method of population projections was used to project the farm male population.

Findings. -- Opportunities exist for employment in agriculture in addition to farming in Claiborne County. The annual average need is 24 persons. This number includes an annual turnover of 17 and a gain of 7 employees per year.

Opportunities still exist for employment in farming. During the decade 1960-1970, it was projected that 535 farm males would retire or die. During the same decade there will be 883 entrants of rural farm males reaching twenty-five years of age. The replacements will need training for farming and the surplus will need training for either related or non-related businesses.

A need was shown for better communications between schools and businesses. Employers indicated that they desired 61 percent of their employees to be high school graduates, 16 percent to have finished the eighth grade, and 11 percent to possess a college degree. Only 2 percent indicated that they used the

high schools as a source to secure agriculturally oriented employees. Approximately 45 percent of the employers used either friends, employees, or both, as recommendations for new employees. Only 25 percent were willing to hire a high school student for work experiences.

A need was shown for redesigning vocational agriculture programs. The agri-businesses were engaging in wholesaling, retailing, servicing, transporting, and manufacturing for farmers. They desired technicians, managers, supervisors, salesmen, skilled and semi-skilled workers. They indicated that 162 of their 229 employees could profit from agricultural training. Sixty-seven percent of the employees were given informal on-the-job training.

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PAYTON, RICHARD W. A Study of the Problems Encountered by Fifty Farmers in Becoming Established in Farming in Virginia. Thesis, M. S., 1965, Virginia State College. 63 p. Library, Virginia State College, Petersburg.

Purpose. -- The purposes of the investigation were to ascertain the problems encountered, to identify the sources of problem solving assistance, and to acquaint both prospective farmers and leaders in agriculture with problems reported.

Method. -- The normative survey method was employed. Seventy-two teachers were each asked to have one farmer to complete the questionnaire which had been prepared. Responses were received from fifty-three instructors and data from fifty of the replies were used in the study.

Findings. -- (1) Insufficient knowledge, absence of suitable creditors, and lack of collateral were reported as the most serious barriors to establishment as far as finance was concerned.

(2) Difficulty in making managerial decisions was indicated quite frequently.

(3) Proper land utilization in order to assure efficient production was listed very often as a problem.

(4) Many farmers reported that the kinds of buildings found on recently purchased farms were not adequate for the type of farming which they desired to follow.

(5) Certain farmers indicated that they entered a given phase of production agriculture without a careful exploration of the marketing situation. Hence, they could not take advantage of the more favorable markets.

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POLLARD, JACKIE A. Methods of Conducting Young Farmer Programs in Oklahoma. Report, M. S., 1965, Oklahoma State University. 55 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose. -- To determine the methods and procedures of conducting young farmer programs in Oklahoma.

Method. -- A questionnaire was formulated and sent to eighteen selected departments in Western Oklahoma. There were three questionnaires sent to each department. They were: (1) to the vocational agriculture instructor, (2) to one young farmer member, and (3) to the Superintendent of the school. In addition, an attempt was made to secure information which might imply adverse effects to the school as a result of implementing this type of organization.

Findings. -- Seventy percent of the teachers preferred to meet at 7:30 p.m. and sixty percent preferred regularly scheduled monthly meetings; this varying with the time of year. Both teachers and young farmers preferred to hold meetings in the Vocational Agriculture building. The young farmers ranked the following as their preference as to a method of contact about meetings: (1) post card, (2) telephone, (3) newspaper, (4) personal contact, and (5) a definite date set on the school calendar. Contrastingly, No. 5 was ranked first in teacher preference. Teachers expressed this as being of primary importance in maintaining desirable relationships with school administrators.

One hundred percent of both teachers and young farmer organization members were in favor of assessing dues; these varying from $1.00 to $3.00 and used primarily for postage, supplies, and recreation. It was reported that forty percent of the departments regularly secured the use of resource personnel up to ninety percent of the time, while forty percent of the departments used them at least fifty to seventy-five percent reporting use slightly in excess of ten percent of the meetings. Both young farmers and teachers emphasized a judgment that the teacher should attempt to teach the class only when he was qualified and had made ample preparation. It was further reported that the choice of subject matter to be considered was shared as a joint responsibility of program committees and instructors in excess of ninety percent of the time. Ninety percent of the superintendents made favorable comments about the program, citing that the only expenses incurred were for heat and electricity. All were very emphatic in the judgment that the teacher of Vocational Agriculture should be knowledgeable and enthusiastic about young farmer work before attempting to implement a program in his local school.

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QUIMBY, MILFORD E. Effectiveness of the Budgetary Analysis Approach of Teaching Farm Management to Vocational Agriculture Students in the Secondary Schools of Northeastern Oklahoma. Thesis, Ed. D., 1965, Oklahoma State University. 93 p. Library, Oklahoma State University, Stillwater.

Purpose. -- To determine if the budgetary analysis approach of teaching farm management to high school students in vocational agriculture would result in more effective learning than use of the traditional approach.

Method. -- The junior and senior students of the thirty-two randomly selected schools of the Northeast district of vocational agriculture were used for the research reported in this paper. A sample was chosen from a population consisting of eighty-five secondary schools offering junior and senior credit in vocational agriculture. The sample was divided into a control category and an experimental category. These two groups were taught farm management by two different teaching approaches during the school year of 1961-62. One group was taught by the "Within-Enterprise" technique in which the student studied farm management solely as it applied to each specific enterprise. The second group was oriented around the "Budgetary Analysis Approach."

Findings. -- It appears from the results of this study that junior and senior high school students are able to comprehend the abstract ideas of farm management when taught by the budgetary analysis approach. The mean gain score for students taught by budgetary analysis is significantly greater than mean gain for students taught by the traditional approach. The achievement of students taught farm management by the experimental treatment, the budgetary analysis approach, exceeded those taught through the traditional approach, substantiating the conclusion that little doubt exists but that teachers supplied lesson plans and teaching outlines for the budgetary analysis approach will accomplish an effective teaching objective in farm management with high school students.

The theory of increased motivation through contest was not substantiated in this study when achievement of students was measured in relationship to contest participation as against lack of such experience.

The amount of money invested in the supervised farm training program of students of vocational agriculture apparently does not affect achievement in farm management learning. The relationship of amount invested in the supervised farm training program was not significant when compared with teaching approach.

Students who participated in the farm management contest have more money invested in their supervised farm training program. Also indicated in this study is the statistically significant relation of the interaction of contest and treatment upon the amount invested in the supervised farm training program. The results lead one to conclude that students taught by the budgetary analysis approach and also participating in the farm management contest will likely have more invested in their total supervised farm training program.

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RHODY, BILLY LOYD. Agriculture Education Majors Who Graduated From the University of Tennessee College of Agriculture From the Summer

Quarter, 1955, Through the Summer Quarter, 1964. Thesis, M. S., 1965, University of Tennessee. 84 p. Library, University of Tennessee, Knoxville.

Purpose. -- To determine the occupational status of graduates in agricultural education from the University of Tennessee, and the reasons for entering or leaving the occupation of vocational agriculture instructor.

Method. -- This study included 153 graduates with a Bachelor of Science degree from the University of Tennessee during a nine-year period. Pertinent information was obtained from students' transcripts and personnel records. Additional information was obtained through information blanks. Usable forms were returned from one hundred graduates.

Findings. -- Two-thirds of the counties in Tennessee were represented by the 153 graduates. Ninety-six of these graduates transferred from twelve other colleges, transferring approximately six quarters of college credit.

Eighty-six percent of the graduates completed at least one year of high school vocational agriculture, while 71 percent finished four years.

Fifty-seven percent of the graduates who responded to the survey decided to major in agricultural education before reaching college and 27 percent decided during their sophomore year in college.

Desire to teach boys and the broad training experiences offered at U. T. were the two reasons most frequently listed for majoring in agricultural education. The teacher of agriculture influenced the most graduates to major in agricultural education.

Fifty-two percent of the graduates taught agriculture as their first job, and 54 percent had taught since graduating. Thirty-five percent were teaching at the time of the study.

Salary, advancement and security, teaching situation, and politics were major reasons for entering other occupations. Graduates had continued to teach because they enjoyed teaching, free to make own plans, can earn a satisfactory living, liked to live in the community, and earned outside income. There was a .07 grade point average difference between the graduates who taught agriculture and those in other occupations. Those in other occupations possessed the slightly higher grade average. Ninety-one percent of the graduates who were not teaching indicated that they would be interested in teaching under different conditions.

Salaries ranged from approximately $3,750 to over $8,000. The median for graduates teaching agriculture was $5,350 and for graduates employed in other occupations, $6,960.

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RICHARD, C. E. AND BASS, B. C. The Extent Vocational Education in Agriculture Tends to Hold High School Students. Staff Study, 1965, 3 p. Department of Agricultural Education, Virginia Polytechnic Institute, Blacksburg.

Purpose. -- To determine the relative importance of vocational education in agriculture as an influence which prevents students from dropping out of school in Virginia.

Method. -- An open-end questionnaire was used to collect data from 1,859 high school juniors and seniors.

Findings. -- Because more than four-fifths of the students who participated in this study had not seriously considered stopping school and because nine-tenths of them reported that their own desire to continue their education was either the most important or second most important reason they had continued to attend school, it was concluded that the desire for knowledge was the most important influence that prevented these students from becoming school drop-outs.

A majority (56 percent) of the students reported that advice received from their respective parents was the most important influence which caused them to continue attending school.

The participating students reported that their teachers and the courses they had taken in high school had been important influences in causing them to continue their education. Outstanding in this respect were teachers of vocational agriculture and the programs they conducted.

Vocational education in agriculture had exerted great influence in causing the students who participated in this study to continue attending school. Its influence was exceeded only by the desire of the students to continue their education and the advice the students had received from their respective parents.

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RICHARD, C. E. AND BASS, B. C. Why Certain College Bound Rural High School Boys in Virginia Did Not Enroll in an Agricultural Curriculum. Staff Study, 1964, 8 p. Department of Agricultural Education, Virginia Polytechnic Institute, Blacksburg.

Purpose. -- To secure from rural high school senior boys, who had enrolled in a college curriculum other than agriculture, their reasons for not enrolling in an agricultural college curriculum and to determine weaknesses, if any existed, in informing high school students of the opportunities for employment in the fields of agriculture.

Method. -- A total of 704 college bound rural high school seniors provided the data on an open-end questionnaire.

Findings. -- The participating rural students who had not enrolled in vocational agriculture while in high school tended to select college curricula other than agricultural curricula.

Eighty-seven percent of the students reported that their interest in an occupation other than an agricultural occupation was the most important factor influencing their selection of a college curriculum. Therefore, it was concluded that the individual's interest in an occupation which requires college training was the most important factor influencing these rural high school seniors in their selection of a college curriculum.

Nearly half (44.2 percent) of the participating students reported that they were not acquainted with the opportunities for employment in the fields of agriculture and 43.9 percent reported they had been advised that there are more and better opportunities in other occupations than in agriculture. Therefore, it was concluded that a serious weakness existed in informing high school students of the employment opportunities in the fields of agriculture.

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RISH, NELSON WAYNE. Undergraduate Grade-Point Ratios and Practice Teaching Grades as Predictors of In-Service Performance of Vocational Agriculture, Non-thesis Study, M. E., 1965, Department of Agricultural Education, Clemson University, Clemson, South Carolina.

Purpose. -- The purposes of the study were to: (1) determine to what degree grades were related to in-service performance of teachers of agriculture, (2) determine if grades could be used as predictors of in-service performance of teachers of agriculture, (3) provide teacher trainers with an objective view of their estimate of in-service performance of teachers of agriculture, and (4) provide superintendents, principals, and supervisors with a guide to use in evaluating academic achievement of prospective teachers of agriculture.

Method. -- All graduates between the years of 1954 and 1963 of Agricultural Education of Clemson University who have taught vocational agriculture in South Carolina were evaluated by the State supervisors in whose district they were employed. This evaluation consisted of reviewing individual teaching performance according to five descriptive terms on the evaluation forms, and then assigning a numerical rating ranging from zero to four, using inverse weighting. The undergraduate cumulative grade-point ratio and the student teaching grade-point ratios were also determined. Using multiple linear correlation and regression techniques a prediction equation for performance ratings was computed and related to in-service performance. The same procedure had been used in Ohio. The results of the Ohio study were combined with the South Carolina study.

Findings. -- The results for the South Carolina study indicate several conclusions:

- the relationship between both undergraduate grades and practice teaching grades and in-service performance of teachers of agriculture was negligible.

- the practical predictive value of undergraduate grades and practice teaching grades either independently or collectively was negligible.

In the Ohio study, a Chi Square analysis was used to determine the association between undergraduate grade-point ratios and in-service performance ratings. A very highly dependent relationship was found. This indicated the undergraduate grade-point ratios might be used as predictors of in-service performance.

To determine the extent of association between practice teaching grades and in-service performance, the Chi Square analysis was utilized again. A very highly dependent relationship was found which indicated that practice teaching grades might be used as predictors of in-service performance.

Analysis of variance for the Ohio study revealed that both undergraduate grade-point ratios and practice teaching grades were highly significant as predictors of performance. Practical utilization of these two variables was limited by the fact that collectively, both variables accounted for only eighteen percent of the total variation in performance ratings.

Several conclusions were drawn from the Ohio study:

- the relationship between both undergraduate grades and practice teaching grades and in-service performance of teachers of agriculture was dependent.

- the practical predictive value of undergraduate grades and practice teaching grades either independently or collectively was negligible.

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ROBERTS, ROY W. Evaluation of the Effectiveness of Instruction in Agricultural Mechanics for Vocational Agriculture Students in Arkansas Who Enter Non-Farming Occupations. Staff Study, 1965, University of Arkansas. 49 p. Department of Vocational-Teacher Education, University of Arkansas, Fayetteville.

Purpose. -- To determine the extent to which instruction in agricultural mechanics provided knowledge and skills needed by students entering non-farming occupations.

Method. -- Data for the study were obtained from 802 former students of vocational agriculture representing 147 schools in Arkansas who entered non-farming

occupations after leaving high school. These students were in the tenth grade and were enrolled in Vocational Agriculture II in 1960-61.

Findings. -- Three-fourths of the former students participating in the study were employed in the same county in which they attended high school. The largest number who entered non-farming occupations were employed in manufacturing industries, especially lumber and textiles. The automotive and construction industries also employed large numbers of former students. Fewer were employed in public utilities, printing, sales, and service occupations.

Most of the former students were employed as semi-skilled and skilled workers. The number of semi-skilled workers was relatively higher in manufacturing than in other occupational groups. There were relatively more skilled workers in the automotive and construction trades.

A total of 82 percent of the students who entered non-farming occupations indicated that the skills they acquired in agricultural mechanics were useful in the occupations in which they were engaged. About 32 percent of the former students indicated a need for additional skills in their occupation not acquired in agricultural mechanics.

The data indicated that former students of vocational agriculture acquired skills in agricultural mechanics that were effectively used in non-farming occupations. The comments from the students indicated that most of them felt that the instruction in agricultural mechanics definitely increased their employability in occupations involving a knowledge and skill of mechanics.

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SESTAK, RICHARD ERNEST. A Study of Opinions of 4-H Club Members, Adult Leaders and Parents Concerning Competitive 4-H Activities in Six Central Oklahoma Counties. Thesis, M. S., 1965, Oklahoma State University. 78 p. Library, Oklahoma State University, Stillwater.

Purpose. -- Major purposes of the study were: (1) to secure the opinions of 4-H members, leaders, and parents concerning present competitive 4-H activities in central Oklahoma, (2) to determine the extent of the educational value of competitive activities as expressed by people most involved in the program, (3) to evaluate present conditions and secure suggestions for the development of a more effective program to help meet the needs of youth.

Method. -- Questionnaires for securing information needed were devised and distributed to randomly selected 4-H club members, leaders, and parents of 4-H members of six central Oklahoma counties.

Findings. -- Opinions of 4-H members, leaders, and parents revealed that the present 4-H competitive activities conducted in central Oklahoma are of

educational value to members who participate in them if they are in accord with the basic objectives of the 4-H club program. It was the general opinion that present activities should be continued but revisions are needed in a few areas concerning practices of conducting competitive activities.

Responding groups felt that competitive activities were of educational value to members in the development of leadership and citizenship through experiences gained by participation. They agreed that activities encourage individual effort on the part of members and the extra effort it takes to win an award in an activity is worthwhile.

Many adult leaders are becoming aware of the importance of guidance in the 4-H program. They agreed that leadership is an important influence in developing a well-planned 4-H program designed to meet the learning needs and interests of youth.

Activities that call for reasoning, judgment, and creative thinking are beneficial experiences for youth. It was the opinion of the majority of the persons included in this study that competitive 4-H activities encourage self-confidence, sportsmanship, self-development, and the expression of individual's own ideas and thoughts to a group. These were generally rated valuable as an educational experience that is helpful to 4-H members in their school work.

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SHOTWELL, THOMAS K. Technology and Educational Reform in Early America, Dissertation, Ph. D., 1965, Louisiana State University. 199 p. Library, Louisiana State University, Baton Rouge.

Purpose. -- To survey the sociological and philosophical origins of career education in agricultural and mechanical sciences and relate them to the founding of the first American institutions in which emphasis was placed on scientific technology.

Method. -- In general, the study was confined to the period beginning with the close of the War of Independence and ending about 1835; however, consideration of philosophical currents was carried well into the sixteenth century. As agriculture was the predominant economic activity prior to 1850, emphasis has been given this aspect but not to the exclusion of engineering and other mechanical interests. The impact of the scientific, the French, and the American Revolutions is related to the agricultural revolution in England and in America, and to the rise of the "common man" in the philosophical backgrounds of education.

Findings. -- Characteristics common to the founding of the earliest schools have been discussed within the context of international communication although most of the work centers about developments within the United States.

Particular details were given concerning the first half-dozen schools established, as well as information relative to their difficulties and achievements.

Consideration of the developments in chemistry, botany, and geology in so far as these influenced educational as well as agricultural practices was given. The long range influences of the interest in "useful knowledge" and in social regeneration were evaluated and related to developments in frontier America, both from the standpoint of the new American thought in politics and of the gathering industrial revolution.

It was concluded that the rationalism of the late eighteenth century, the advances in agricultural and mechanical technology, and the new democratic view of the role of the masses in society combined to create a pedagogical climate in which a strong interest in applied science could replace much of the traditional curriculum. The educational works of Pestalozzi and Lancaster were considered within the context of American education.

Although distant, a significant relationship has been established between the early schools and the Land Grand and subsequent acts relating to vocational education in general.

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SIEGENTHALER, IRVIN ELDIE. An Evaluation of the Jimma Agricultural Technical School Program, Jimma, Ethiopia, Based Upon a Study of Jimma Graduates. Thesis, Ed. D., 1965, Oklahoma State University. 108 p. Library, Oklahoma State University, Stillwater.

Purpose. -- To obtain descriptive evidence for an evaluation of the Jimma School and to ascertain whether or not differences exist between graduates of the several provinces and tribes in certain specific post-high school pursuits.

Method. -- The method of collecting data was through a combination of personal contact and by mailing a survey schedule to as many former graduates as possible. Data pertaining to academic achievement were obtained from official transcripts from both the Jimma Agricultural Technical School, Jimma, Ethiopia, and the Haile Selassie I University College of Agriculture, Alemaya, Ethiopia. Data were analysed and findings presented relating to proposed questions of this evaluation study.

Findings. -- The findings at the time the study was conducted were as follows: (1) little or no association was evidenced between graduates' home province, tribe and occupational experience; (2) no meaningful differences exist in the rating of practical work training when graduates were grouped by tribe and province; (3) graduates did not disagree in their evaluation of the broad course areas of the high school curriculum when grouped by provinces, but important

differences did exist when grouped by post-high school educational status; (4) little difference exists between graduates' cultural background and expressed opinion as to whether or not additional course training would be of benefit in career advancement and factors they considered important in career advancement; (5) no real difference was found between cumulative grade-point averages of former graduates when grouped by home provinces; (6) considerable differences exist between the number of college of agriculture drop-outs because of academic deficiencies and high schools attended; (7) grade deficiencies of Jimma graduates in the agricultural college were most often found in the physical sciences.

From the findings in this study it was concluded that: (1) the nature and extent of social and economic development programs of government ministries influence the occupations and type of jobs held by Jimma graduates rather than cultural background of tribes and home province; (2) regardless of cultural background, Jimma graduates accept practical work as part of their high school training; (3) post-high school pursuits of graduates influence their evaluation of courses taught in high school more than does home province; (4) graduates did not recognize additional training in any specific curriculum area as beneficial toward career advancement, and their knowledge of agriculture and grades in school were rated as the most important factors; (5) academic success as reflected by cumulative grade point averages is associated with factors other than home province of graduates; (6) when comparing the number of agricultural college drop-outs grouped by high schools attended, Jimma graduates apparently are well prepared to succeed in college; and (7) there would appear to be substantial evidence that Jimma graduates attending the agricultural college are somewhat inadequately prepared in the physical sciences, especially chemistry.

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WEBB, EARL S. Relative Degrees of Difficulty Experienced by Teachers of Vocational Agriculture in Conducting Specified Activities in Agricultural Mechanics Programs in Texas. Staff Study, Department of Agricultural Education, Texas A&M University, College Station.

Purpose. -- The purposes were to (1) determine the relative degrees of difficulty experienced by teachers in conducting specified activities in agricultural mechanics and (2) determine the percentage of teachers, area supervisors would estimate who "need much improvement" in these same specified activities.

Method. -- Data were obtained by use of information forms sent to teachers of vocational agriculture and to area supervisors. Degrees of difficulty expressed by teachers were converted to mean weighted difficulty scores. Supervisors' estimates for "much improvement needed" were converted to percentages for the State and reported as means.

Findings. -- The five activities judged most difficult by teachers were (1) obtain consumable supplies in advance of shop classes, (2) determine tools and

equipment for teaching tractor and machinery maintenance, (3) obtain finance to operate the program, (4) develop a budget and (5) keep students busy during shop classes.

Supervisors' estimates of the percentage of teachers "needing much improvement" tended to parallel the mean weighted difficulty scores expressed by teachers. The five activities in which teachers needed the most improvement as estimated by supervisors were: (1) determining tools and equipment needed to teach tractor and machinery maintenance, (2) obtaining plans and drawings for student projects, (3) obtaining finances for the mechanics program, (4) maintaining good housekeeping standards, and (5) obtaining consumable supplies in advance of shop classes.

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WILLIAMS, WILLIAM F. The Role of the Extension Agent in the Contract Table Egg Industry as Perceived by the Contractors and Compared to the Role as Perceived by the Extension Agents. Non-thesis Study, Master of Agriculture, 1965, Auburn University, Auburn, Alabama. 43 p. Department of Vocational, Technical and Practical Arts Education.

Purpose. -- To ascertain what the role of the extension agent should be in the contract egg production industry as perceived by the contractors and extension agents.

Method. -- Data were collected and analyzed from role instruments sent to the county agents in each of the twenty top egg producing counties and twenty-three contractors who were doing business in the ten top counties.

Findings. -- (1) Extension agents agreed by a slight margin that their role was to educate for decision making rather than providing technical directives, while seven of the nine contractors agreed that agents role should include providing technical directives. (2) Agents viewed their role as assisting contractees in evaluating contractual agreements more so than assisting contractors. (3) There is general agreement among agents and contractors on the agent's role of assisting contractees in record keeping and record analysis. (4) Contractors were in strong agreement on the roles of agents as (a) liaison between research and contractors, (b) locating and expanding the market for eggs and (c) arranging technical service visits by poultry specialists. (5) The three technical areas in which extension agents think there is the greatest need for additional training is (a) general management, (b) marketing and (c) housing and equipment.

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WRIGHT, DAVID L. A Study of the Members of the Sulphur Springs, Texas, Young Farmer Chapter to Determine the Adequacy of Their Program of Work. Non-thesis Study, 1965, East Texas State University. 32 p. Department of Agriculture, East Texas State University, Commerce.

Purpose. -- The purpose of this study is to determine the adequacy of the program of work of the Sulphur Springs, Texas, Young Farmer Chapter and to find out how this program may be improved, if improvement is necessary.

Method. -- The procedures used in making this study are as follows: (1) after careful consideration, the problem was selected with the aid of one of the teachers of the Sulphur Springs Chapter; (2) a questionnaire was drawn up and mailed to the twenty-three members to get their opinions on how the annual program of work may be improved; (3) the data gained from the returned questionnaires were compiled into charts and summaries showing the opinions of the chapter members.

Findings. -- Seventy-five percent of the members stated that the program of work was adequate for their needs. Three-fourths of the young farmers stated that they benefitted most from the educational activities of the program of work; the remaining one-fourth believed that cooperative and community service activities were most beneficial.

There were a variety of ideas among the members concerning needed improvements in the program of work. Recreational activities could be improved according to 37.5 percent of the members; 25 percent recommended improving educational activities; 25 percent felt that cooperative and community service activities were not adequate; and 12.5 percent wanted to improve leadership activities.

The survey showed a strong, active chapter which has interested members and a good program of work.

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